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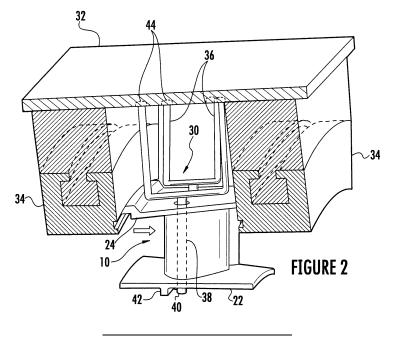
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#### (54) System and method for supporting a nozzle assembly

(57) A system for supporting a nozzle assembly (10) includes a first member (36) connected to a stationary component and a second member (38) extending from the first member (36) radially through at least a portion of the nozzle assembly (10). A distal end (40) of the second member (38) is radially displaced from the first member (36) and configured to contact the nozzle assembly (10). A method for supporting a nozzle assembly (10)

includes connecting a first member (36) to a stationary component and extending a second member (38) from the first member (36) radially through at least a portion of the nozzle assembly (10). The method further includes contacting a distal end (40) of the second member (38) to the nozzle assembly (10), wherein the distal end (40) is radially displaced from the first member (36).





## **EUROPEAN SEARCH REPORT**

Application Number

EP 12 17 2567

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| Category   | Citation of document with indication               | n, where appropriate,                                      | Relevant<br>to claim  |                                    |  |
|--|--|--|---|------------------------------------|--|
| X  | of relevant passages US 2004/109724 A1 (TIEM       | <br> ANN PETER [DF])                                       | to claim  | APPLICATION (IPC)                  |  |
| A  | 10 June 2004 (2004-06-1<br>* paragraphs [0001] - [ | .0)  | 2 5,6,11,   | F01D5/14<br>F01D9/04               |  |
| .,   |  |  | 12  | F01D25/24                          |  |
| X  | US 4 832 568 A (ROTH RO<br>23 May 1989 (1989-05-23 | BERT H [US] ET AL<br>;)                                    |   |                                    |  |
| A  | * figure 2 *                                       |  | 5,6,11,<br>12   |                                    |  |
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|  |  |  |   | TECHNICAL FIELDS<br>SEARCHED (IPC) |  |
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|  | The present search report has been d               | rawn up for all claims                                     |   |                                    |  |
|  | Place of search                                    | Date of completion of the search                           |   | Examiner                           |  |
| Munich   |  | 27 July 2017   | Geo   | Georgi, Jan                        |  |
| CATEGORY OF CITED DOCUMENTS  X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure |  | E : earlier patent<br>after the filing<br>D : document cit | nciple underlying the in<br>t document, but publis<br>date<br>ed in the application<br>ed for other reasons | nvention<br>shed on, or            |  |
|  |  |  | & : member of the same patent family,   |                                    |  |

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## ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 12 17 2567

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

27-07-2017

|           | Patent document cited in search report |    | Publication<br>date |  | Patent family<br>member(s)   | Publication date   |
|-----------|--|----|---------------------|--|--|--|
|           | US 2004109724                          | A1 | 10-06-2004          | AT<br>CN<br>EP<br>ES<br>JP<br>JP<br>US | 329139 T<br>1485529 A<br>1389669 A1<br>2266367 T3<br>4563009 B2<br>2004076738 A<br>2004109724 A1 | 15-06-2006<br>31-03-2004<br>18-02-2004<br>01-03-2007<br>13-10-2016<br>11-03-2004<br>10-06-2004 |
|           | US 4832568                             | A  | 23-05-1989          | NONE                                   | :  |  |
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| ORM P0459 |  |    |                     |  |  |  |

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82